Navigating conflicts of interest in a rapidly changing research landscape

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Many journals refuse to publish research linked to tobacco companies. It seems logical to extend this to research on e-cigarettes, despite their potential to reduce tobacco-related harm. However, the practicalities of this may be complex; a more pragmatic and open approach may be better suited to a rapidly-changing research landscape.

We live in interesting times as a tobacco control community. In 2016, a nicotine inhaler will be available on prescription via the National Health Service in the United Kingdom for smokers wishing to quit. It is neither electronic nor a cigarette, but certainly more similar to a 1st generation e-cigarette than a nicotine replacement therapy inhalator. This product is manufactured by British American Tobacco. From this, a paradox emerges: It is legitimate and valuable to conduct randomized controlled trials of licensed medicinal products (and indeed any product that may be effective in helping smokers to quit), and the research community would want to know the results of these studies. However, Shaw and colleagues argue that journals which refuse to publish studies funded by (or otherwise linked to) the tobacco industry should not make an exception in the case of e-cigarettes (1). This argument is based on longstanding evidence that the tobacco industry has sought to undermine the scientific literature to their own ends, and they restrict their argument to "only those [e-cigarette companies] owned by, funded by, or linked with the tobacco industry". Nevertheless, they do not fully consider the extent to which such a policy would be workable in practice, compared with a more pragmatic and open approach based on full disclosure.

First, while there is a clear need to protect the scientific literature from overt biases and conflicts of interest, if we choose to prohibit research from one group of organizations with a track record of distorting the scientific literature, then we might choose to extend this to other groups that have displayed similar behaviour in the past, such as the pharmaceutical industry (2). Moreover, there are other conflicts of interest beyond the financial – scientists themselves hold beliefs that will influence their interpretation of data (3), while the incentive structures within which scientists work, may, consciously or unconsciously, promote adherence to a particular viewpoint that is popular with journal editors, funding agencies, or simply the wider scientific community (4). The complexities involved in defining what constitutes a meaningful conflict of interest have been discussed extensively elsewhere (5). Of

course, as Shaw and colleagues note, there are important differences between the tobacco industry and the pharmaceutical industry, and both are very far removed from the relatively benign biases of scientists and the wider scientific community.

Second, and perhaps more importantly, the e-cigarette landscape is changing rapidly, and the scientific community is finding it difficult to adapt. Despite concerns that e-cigarettes may serve as a Trojan horse for the tobacco industry, the majority of e-cigarette manufacturers remain independent of the tobacco industry – of 466 brands reviewed in 2014, only 10 were owned by the tobacco industry at that point (6). Those products which are now linked to the tobacco industry tend to be first generation "cigalike" devices, whereas the majority of vapers choose to use 2nd or 3rd generation "tank" devices that provide more rapid delivery of higher doses of nicotine (7). Therefore, at present, most research conducted by e-cigarette companies would not be subject to the restrictions proposed by Shaw and colleagues. However, what if an e-cigarette company was purchased while a manuscript was under review? Or after it had been accepted? Or published? It would seem perverse to apply restrictions on the basis of conflicts of interest that presumably could not have existed when the research was conducted, but equally it is unlikely that this distinction would be clear to readers of the article several years later.

We certainly need to be vigilant with respect to conflicts of interest, in particular in relation to the tobacco industry. However, we also need to ensure that science remains open, and that scientific research is judged as much as possible on the basis of the data rather than the source of the data. The disruption introduced by the rapid growth in popularity of e-cigarettes provides us with an opportunity to adopt a more pragmatic and open approach, based on full disclosure of potential conflicts of interest, rather than reflexively resorting to restrictions that were designed for a different environment that may not serve us well as we seek to understand what role, if any, e-cigarettes can play in reducing the harms associated with tobacco use.

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